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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,653	12/21/2000	Michael Hannington	AVERP2808USA	7502

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EXAMINER

EGAN, BRIAN P

ART UNIT	PAPER NUMBER
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1772

10

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

T-D -

Office Action Summary	Application No.	Applicant(s)	
	09/742,653	HANNINGTON, MICHAEL	
	Examiner	Art Unit	
	Brian P. Egan	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 44-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 31-43 and 46-59 is/are rejected.
- 7) ☒ Claim(s) 44 and 45 is/are objected to.
- 8) ☒ Claim(s) 1-30 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Election/Restrictions

Restrictions to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-30, drawn to a method of making an adhesive article, classified in class 156, subclass 230.
- II. Claims 31-59, drawn to an adhesive article, classified in class 428, 40.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. This inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP Sec. 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as by printing a pattern of non-adhesive material onto a release liner and overcoating the printed release liner with an adhesive.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their divergent subject matter and different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation between Ms. Heidi Boehlefeld and Examiner J.A. Lorengo on February 9, 2002, a provisional election was made with traverse to prosecute the invention of Group II, claims 31-59. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). There are no claims numbered 44 or 45. The Examiner has not renumbered the claims for examination purposes although it is required that the applicant cancel claims 44-45 to be in accordance with 37 CFR 1.126.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 31-59 are rejected under 35 U.S.C. 112, first paragraph,. As based on a disclosure that is non enabling. It is indicated that a route for air bubbles to egress is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure.

See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

More particularly, in claim 31, the non-adhesive material forms are embedded into the release liner. However, in the Specification, on page 15, paragraph [0042], applicant states, “This is particularly true for the smaller bubbles which form as the natural result of laying the adhesive construction onto a substrate. Even when applied properly, small bubbles are still formed. The air in these bubbles needs a route to egress.” The necessary feature of a “route to

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egress” is not incorporated into the independent claim 31. Proper clarification and/or correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 31-33, 35, 37, 42, 55 and 59 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rusincovitch et al. (#5,676,787).

Rusincovitch discloses an adhesive article (Fig. 5) comprising a release liner having a release surface and a back surface (Col. 2, lines 42-45), a continuous layer of a pressure sensitive adhesive having a front surface and a back surface and end edges (Fig. 4, #16; Col. 9, lines 3-9) wherein the front surface of the adhesive is adhered to the release surface of the release liner (“Then the decorative sheet having the release layer and spacers on one side and PSA on its other side is rolled up to form a roll. This causes the spacers and release layer to contact the PSA.” Col. 2, lines 49-52), and a pattern of non-adhesive material forms embedded into the release surface of the release liner wherein the non-adhesive material forms have top surfaces (Fig. 4B). The back surface of the release liner has a release coating thereon (Col. 11, line 28-35). The

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non-adhesive material forms have a thickness of 0.05 mils to 0.50 mils (5μ - 500μ ; i.e. within the range of 30nm- 100μ ; Col. 9, lines 51-54). A facestock is applied to the back surface of the aforementioned adhesive layer (Figs. 1-2, #12). The non-adhesive material forms are applied by printing (Col. 2, lines 43-45) in a pattern comprising a plurality of dots, lines, or combinations thereof (Fig. 8A and 8B; Col. 9, lines 35-42). Furthermore, the thickness of the non-adhesive material forms is sufficient enough to cause deformation of the facestock upon application of the adhesive article to a substrate (Col. 9, lines 26-33).

6. Claims 31-33, 37, 42-43, 49, and 55 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Danielson et al. (#3,331,729).

Danielson discloses an adhesive article comprising a release liner having a release surface and a back surface (Figs. 2-3, #27), a continuous layer of a pressure sensitive adhesive (Col. 7, lines 54-55) that may be heat activated (Col. 7, lines 62-66) having a front surface and a back surface and end edges wherein the front surface of the adhesive is adhered to the release surface of the release liner (Figs. 2-4, #29), and a pattern of non-adhesive material forms embedded into the release surface of the release liner wherein the non-adhesive material forms have top surfaces (Figs. 2-5, #14). The non-adhesive material forms comprise a plurality of dots (Figs. 2-4; Col. 7, lines 18-21) and are 40 - 100μ in thickness (Col. 8, lines 1-6). The top surfaces of the non-adhesive material forms are below the plane of the surface of the release liner (See Figs. 2-3; Col. 4, lines 63-70). The back surface of the release liner has a release coating thereon (Col. 4, lines 42-49). A facestock is applied to the back surface of the adhesive layer (Fig. 2, #21).

7. Claims 31-32, 35, 37, 42, 49, 54-55, and 59 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Dressler (#6,083,616).

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Dressler discloses an adhesive article comprising a release liner having a release surface and a back surface (Fig. 4, #16), a continuous layer of a pressure sensitive adhesive having a front surface and a back surface and end edges wherein the front surface of the adhesive is adhered to the release surface of the release liner (Fig. 1, #18), and a pattern of non-adhesive material forms embedded into the release surface of the release liner wherein the non-adhesive material forms have top surfaces (Fig. 4, #24) – the non-adhesive material forms being applied by printing (Col. 4, lines 18-20). The non-adhesive material forms comprise a plurality of dots (Col. 4, lines 3-4; Col. 4, lines 14-20). The top surfaces of the non-adhesive material forms are below the plane of the surface of the release liner (See Fig. 4). The thickness of the non-adhesive material forms is sufficient enough to cause deformation of the facestock upon application of the adhesive article to a substrate (Col. 5, lines 1-8). The back surface of the release liner has a release coating thereon (Col. 3, lines 54-65). A facestock is applied to the back surface of the adhesive layer (Fig. 5, #10). The adhesive article further comprises a second release liner adhered to the back surface of the adhesive (Col. 3, lines 44-48).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 36, 38-40, 46, and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable in view of Rusincovitch et al. ('787).

The teachings of Rusincovitch et al. are relied upon as set forth above. Further, Rusincovitch et al. teach that anything that can be used as the ink on a printing machine can be used for fabricating the spacers so long as it is not sticky or tacky upon drying so that the spacers can slide over the surface of a wall. Thus, any plastic, including resinous material, which can be placed in solution, dispersion, or emulsion, and which is not sticky or tacky on drying would be used. The spacers can be made of organic polymeric material such as polyurethane, polyvinyl alcohol, acrylic polymers, acetate, polyethylene, polypropylene, or polystyrene and the like (Col. 10, lines 30-39). Therefore, in the absence of unexpected results, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have used either UV curable ink or coalesced ink in order to obtain the inherent non-adhesive properties of both UV-cured and coalesced inks.

Rusincovitch et al. further teach that the size, location, repeating, design, and surface area of the spacers can be varied to match or register with the printed or embossed patterns on the face of the decorative sheet. These aforementioned properties are variable for the purpose of significantly reducing the noticeability of the spacers. The spacers on the back of the decorative sheet can be circles, diamonds, squares, ellipses, rectangles, or other shapes, including irregular shapes such as wavy lines (Col. 9, lines 35-42). Rusincovitch et al. teach that the spacers cover

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from 5-50% of the back surface (Col. 9, lines 55-57) and that the percent of back surface area occupied by the spacers are modified to allow the decorative sheet to be slidably movable on the surface of a wall (Col. 9, lines 15-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified Rusincovitch et al. to include a plurality of lines, either in vertical, horizontal, or grid form depending on the printed or embossed pattern on the face of the decorative sheet and therefore creating either a random or patterned textured surface, of non-adhesive material forms ("spacers") with variable thickness, width, and percent coverage of the back surface in order to provide an adhesive article that is slidably movable on the surface of a wall while at the same time having a reduced noticeability of the spacers for aesthetic reasons.

11. Claims 34 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. ('787) in view of Murai et al. (#5,853,862).

The teachings of Rusincovitch et al. are relied upon as set forth above. Rusincovitch et al. fail to teach the method of forming the non-adhesive material forms by vacuum metallization or sputtering and the thickness of the non-adhesive material relied upon through the method of forming as claimed in dependent claim 41.

Murai et al., however, teach that a non-adhesive anchor coat layer that demonstrates a high antiblocking property. The inorganic anchor coat layer can be formed by utilizing the conventional technology which includes physical methods (e.g. vacuum vapor deposition, reactive vapor deposition, sputtering, reactive sputtering, ion plating, reactive ion plating, etc.) and chemical methods (e.g. CVD, plasma CVD, and laser CVD processes) (Col. 14, lines 10-23). Formation of the barrier film by any of the aforementioned methods is done for the purpose of

providing a film that inhibits the deterioration of the adhesive properties and barrier properties even when exposed to severe conditions (see Abstract) as well as to avoid the curing and/or drying process required by an ink printing method. It would have been obvious through routine experimentation to one of ordinary skill at the time applicant's invention was made to have used a vacuum metallization or sputtering method to impart non-adhesive material forms into an adhesive article for the purpose of providing a film that inhibits the deterioration of the adhesive properties and barrier properties even when exposed to severe conditions as well as to avoid the curing and/or drying process required by an ink printing method as taught by Murai et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified Rusincovitch et al. by imbedding the non-adhesive material forms by vacuum metallization or sputtering as taught by Murai et al. in order to provide a film that inhibits the deterioration of the adhesive properties and barrier properties even when exposed to severe conditions as well as to avoid the curing and/or drying process required by an ink printing method. Further note that the method of forming the device is not germane to the issue of the patentability of the device itself. Therefore, this limitation has been given little patentable weight. The limitation with respect to the thickness of the non-adhesive material forms has been discussed above – Rusincovitch et al. teach not only that the thickness of the non-adhesive material forms are within the claimed range of 30-3000nm (specifically 5-500 μ), but that it can also be varied in thickness to accommodate the pattern of printing or embossing on the facestock.

12. Claims 39-40 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. either individually, or in view of GB #1,511,060.

The teachings of Rusincovitch et al. are relied upon as set forth above, including the obvious modification of using a grid pattern wherein at least 50% of the lines intersect the end edges of the adhesive layer. Alternatively, GB #1,511,060 teaches an air impermeable adhesive sheet, provided on its back surface with a heat and pressure-sensitive adhesive, wherein the surface of the adhesive layer is provided with one or more elongate ridges or recesses and wherein at least on one end of such ridge or recess intersects the end edge of the sheet. Further, GB '060 teaches that a grid pattern (Fig. 5-3) of parallel straight lines can be used for the purpose of effectively achieving the air egressing effect (p.2, lines 116-128). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a grid pattern in an adhesive article for the purpose of achieving the air egressing effect as taught by GB '060.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified Rusincovitch et al. to include a grid pattern as taught by GB '060 in order to allow the non-adhesive material forms to form a pattern that can effectively achieve the air egressing effect.

13. Claims 47-48 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. in view of Knott et al. (#5,731,073).

The teachings of Rusincovitch et al. are relied upon as set above. Rusincovitch et al. fail to teach the use of a non-adhesive material form comprising a porous, non-adhesive elastomer.

Knott et al., however, teach the use of a non-adhesive porous elastomer for the purpose of temporarily connecting two components. It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to

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have used a porous, non-adhesive elastomer to form non-adhesive material forms in an adhesive article for the purpose of providing temporary connection between substrates.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified Rusincovitch et al. to use the porous, non-tacky elastomer material as taught by Knott et al. in order to provide temporary connection between the substrates prior to removing the release liner from the adhesive surface.

14. Claims 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. either individually, or in view of JP 59-53787.

The teachings of Rusincovitch are relied upon as set forth above, including the obvious modification of using a textured release liner tailored to the printing or embossing of the facestock. Alternatively, JP '787, directed to a pressure sensitive adhesive waterproof sheet, teaches a textured release liner applied to an adhesive surface, thereby forming grooves in grid pattern (Fig. 3) onto the pressure sensitive adhesive surface (p. 2, paragraph 5; p.4, paragraph 1). The textured release liner surface is provided such that when the release liner is peeled off, clearly defined grooves on the adhesive surface are then available to allow the air trapped between the adhesive sheet and the substrate to be exhausted (or egressed) smoothly (p. 4, paragraph 1). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a textured release liner surface for the purpose of providing clearly defined grooves on the adhesive surface allowing for the air trapped between the adhesive sheet and the substrate to be successfully egressed as taught by JP 59-53787.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified Rusincovitch et al. by using a textured release liner surface as taught by JP 59-53787 in order to provide clearly defined grooves on the adhesive surface allowing for the air trapped between the adhesive sheet and the substrate to be successfully egressed.

15. Claims 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dressler ('616) in view of Calhoun et al. (#5,585,178).

The teachings of Dressler are relied upon as set forth above. Dressler fails to teach a second adhesive layer adhered to the back surface of the release liner wherein a facestock is adhered to the second (or first) adhesive.

Calhoun et al., however, teach a composite adhesive tape with two adhesive layers, the second adhesive being adhered to the back side of the release liner (See Fig. 4). The two layered adhesive is used for the purpose of having two adhesives providing different properties – i.e., such that the first adhesive can have a repositionable property and the second adhesive can be used to build bond strength during aging when adhered to a substrate/facestock. (Col. 3, lines 30-35). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used multiple layers of adhesive in an adhesive article for the purpose of providing varying properties to the article wherein one adhesive provides repositionability and the second adhesive builds bond strength through aging as taught by Calhoun et al.

Therefore, it would have been obvious to one of ordinary skill at the time applicant's invention was made to have modified Dressler to include a second layer of adhesive as taught by

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Calhoun et al. in order to provide an adhesive article with varying properties via the use of multiple adhesives wherein one adhesive provides the article with repositionability and the other builds bond strength through aging and is bonded to a facestock.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 703-305-3144. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

BPE
May 2, 2002


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772
5/3/02